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EXAMINER GRAVINI, STEPHEN MICHAEL				
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* LG ELECTRONICS INC.

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Appeal 2009-003601  
Application 10/660,732  
Technology Center 3700

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Decided: August 20, 2009

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Before JAMESON LEE, RICHARD TORCZON, and SALLY C.  
MEDLEY, *Administrative Patent Judges*.

LEE, *Administrative Patent Judge*.

DECISION ON APPEAL

A. STATEMENT OF THE CASE

This is a decision on appeal by the real party in interest, LG Electronics Inc. (LG), under 35 U.S.C. § 134(a) from a final rejection of claim 9. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

References Relied on by the Examiner

Tremblay	2,547,238	Apr. 3, 1951
Cunha et al. (Cunha)	5,664,936	Sep. 9, 1997
Hong et al. (Hong)	6,874,248	Apr. 5, 2005

The Rejections on Appeal

The Examiner rejected claim 9 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

The Examiner rejected claim 9 under 35 U.S.C. § 103(a) as unpatentable over Tremblay and Cunha.

The Examiner rejected claim 9 under the judicially created doctrine of obviousness-type double patenting as unpatentable over claims 1-9 of Hong in view of Cunha.

The Invention

The invention relates to a laundry dryer having a fan and a motor shaft wherein the motor shaft includes chamfers, *i.e.*, flattened surfaces that are formed on opposite sides of the shaft. Those flattened surfaces allow the motor shaft to be held by a tool for facilitating removal of the fan from the shaft. (Spec. 4: ¶¶ 17 & 18.)

Claim 9 is reproduced below (Claims App'x 1:2-7):

9. A laundry dryer comprising:

a motor bracket fixed to a bottom of the dryer;

a motor mounted on the motor bracket, the motor including a motor shaft extending therefrom; and

a fan coupled with the motor shaft, wherein the motor shaft includes chamfers parallel to each other and configured for facilitating removal of the fan from the motor shaft.

B. ISSUES

1. Has LG shown that the Examiner was incorrect in rejecting claim 9 as lacking written description support for the claimed “chamfers parallel to each other”?
2. Has LG shown that the Examiner was incorrect in finding that Cunha teaches a fan motor shaft with chamfers that are configured for facilitating removal of the fan from the motor shaft?

C. FINDINGS OF FACT

1. LG’s specification describes that motor shaft 500 includes chamfered parts 500a in the shaft. (Spec. 6: ¶ 32.)
2. LG’s Figure 5 is reproduced below:

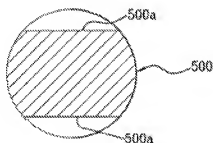


Figure 5 depicts a cross-section of a motor shaft.

3. LG’s Figure 5 shows that chamfered parts 500a are configured as a pair of flat surfaces with one surface arranged at an upper portion of the shaft and one surface arranged at a lower portion of the shaft.
4. Cunha discloses a fan mounting arrangement in which the tubular central hub 10 of a fan is received on the beveled end of motor shaft 20. (Cunha 2: 54-61.)

5. In Cunha, engaging recess 21 in the motor shaft engages a corresponding engaging projection 11 of the fan hub. (*Id.* at 2:62-67.)

6. In particular, Cunha states (*Id.* at 3:1-6):

The mounting of the tubular central hub 10 to the adjacent shaft end 20 occurs by a diametral elastic deformation of the central hub 10 along part of its extension adjacent to the region where the engaging projection 11 is defined, until said engaging projection 11 fits into the corresponding engaging recess 21 provided in the adjacent shaft end 20.

7. Cunha further discloses that after projection 11 is fit into recess 21, relative movement between the shaft 20 and the hub 10 is restrained. (*Id.* at 1:55-63.)

#### D. PRINCIPLES OF LAW

To satisfy the written description requirement of 35 U.S.C. § 112, an applicant must “convey with reasonable clarity to those skilled in the art” that he or she was in possession of the claimed invention. *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Circ. 1991). One shows “possession” of the invention by describing the invention using such description means as words, structures, figures, diagrams, formulas, etc., that fully set forth the claimed invention. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Circ. 1997). It is not necessary that the exact terms that appear in the claim also appear in the description. *Id.*

E. ANALYSIS

Written Description

The Examiner rejected claim 9 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner contends that claim 9 does not have written description support for the limitation of “chamfers parallel to each other.” (Ans. 3:8-17.) LG asserts that its specification describes a motor shaft 500 having chamfered parts 500a and that the chamfered parts 500a as illustrated in Figure 5 are parallel to each other. (App. Br. 4:22-5:17; Reply Br. 5:10-8:21.)

To satisfy the written description requirement of 35 U.S.C. § 112, an applicant must “convey with reasonable clarity to those skilled in the art” that he or she was in possession of the claimed invention. *Vas-Cath*, 935 F.2d at 1563-64. One shows “possession” of the invention by describing the invention using such description “means as words, structures, figures, diagrams, formulas, etc., that fully set forth the claimed invention.” *Lockwood*, 107 F.3d at 1572. It is not necessary that the exact terms that appear in the claim also appear in the description. *Id.* Also, drawings are a part of the disclosure and thus what is clearly shown by the drawings need not also be described in words. Frequently, the key issue regarding a drawing is what it really conveys to one with ordinary skill in the art about the subject matter possessed by the inventors.

Here, LG’s specification describes that motor shaft 500 includes chamfered parts 500a in the shaft. (Spec. 6: ¶ 32.)

LG's Figure 5 is reproduced below:

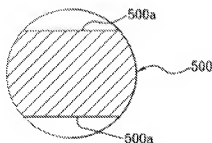


Figure 5 depicts a cross-section of a motor shaft.

LG's Figure 5 shows that chamfered parts 500a are configured as a pair of parallel flat surfaces that extend a short distance along the length of the generally cylindrical motor shaft 500. One flat surface is arranged at an upper portion of the shaft and one flat surface is arranged at a lower portion of the shaft. Although LG's specification does not use the term "parallel," the configuration shown in Figure 5 would have reasonably conveyed to one with ordinary skill in the art that those upper and lower flat surfaces are parallel to one another. That simply is what the drawing shows and is not subject to reasonable dispute. It is not necessary that the specification also, in words, state that the chamfered parts are parallel to each other.

We do not sustain the Examiner's rejection of claim 9 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

#### Obviousness

The Examiner rejected claim 9 as unpatentable over Tremblay and Cunha. We focus on the disputed limitations. LG argues that the combination of Tremblay and Cunha does not teach a motor shaft with

“chamfers parallel to each other and configured for facilitating removal of the fan from the motor shaft” as required by claim 9.

The Examiner found that Tremblay discloses a laundry dryer having all the limitations of claim 9 with the exception of the above-quoted requirement. To account for that requirement, the Examiner turned to Cunha. The Examiner found that Cunha discloses a motor shaft for a fan blade of an appliance where the motor shaft has chamfers parallel to each other. The Examiner considers that Cunha’s “chamfers parallel to each other” are formed by the beveled region of motor shaft 20 taken with the engaging recess 21 that is defined within the beveled region. (Ans. 4:6-10.) The Examiner deems that the motor shaft 20 and engaging recess 21 are “configured for facilitating removal of the fan from the motor shaft.” (*Id.*)

We focus on the limitation that the chamfers are “configured for facilitating removal of the fan from the motor shaft.” The Examiner alleges that the requirement is simply a statement of the intended use of the chamfers and contends that the “chamfers” in Cunha would be capable of performing that use. (Ans. 12:1-6.) However, that requirement is not an intended use limitation. Rather, the chamfers of the motor shaft must be structurally configured such that they may facilitate removal of the fan from the motor shaft. Not all structures are necessarily configured in such a manner. The Examiner does not explain how Cunha’s beveled region of shaft 20 and the engaging recess 21 are configured to facilitate removal of anything.

Cunha discloses a fan mounting arrangement in which the tubular central hub 10 of a fan is received on the beveled end of motor shaft 20. (Cunha 2: 54-61.) Engaging recess 21 in the motor shaft engages a



corresponding engaging projection 11 of the fan hub. (*Id.* at 2:62-67.) In particular, Cunha states (*Id.* at 3:1-6):

The mounting of the tubular central hub 10 to the adjacent shaft end 20 occurs by a diametral elastic deformation of the central hub 10 along part of its extension adjacent to the region where the engaging projection 11 is defined, until said engaging projection 11 fits into the corresponding engaging recess 21 provided in the adjacent shaft end 20.

Cunha further discloses that after projection 11 is fit into recess 21, relative movement between the shaft 20 and the hub 10 is restrained. (*Id.* at 1:55-63.) Thus, Cunha's mounting arrangement appears to be configured to facilitate the fixation rather than removal of the fan from the motor shaft. Cunha does not disclose that the beveled region of the motor shaft or the engaging recess has any role in fan removal and the Examiner has made no explanation in that regard. The Examiner also has pointed to no disclosure in Cunha with regard to how and whether the fan would be removed.

For the foregoing reasons, we do not sustain the rejection of claim 9 as unpatentable over Tremblay and Cunha.

#### Double Patenting

The Examiner rejected claim 9 under the judicially created doctrine of obviousness-type double patenting as unpatentable over claims 1-9 of Hong in view of Cunha. Specifically, the Examiner contends that claims 1-9 of Hong recite all the features of claim 9 of the present application except for the required "chamfers parallel to each other and configured for facilitating removal of the fan from the motor shaft." To account for that limitation the Examiner pointed to Cunha.

For the same reasons given above, we do not agree with the Examiner that Cunha teaches chamfers that are “configured for facilitating removal of the fan from the motor shaft.” Accordingly, we do not sustain the rejection of claim 9 under the judicially created doctrine of obviousness-type double patenting based on claims 1-9 of Hong in view of Cunha.

F. CONCLUSION

1. LG has shown that the Examiner was incorrect in rejecting claim 9 as lacking written description support for the claimed “chamfers parallel to each other.”

2. LG has shown that the Examiner was incorrect in finding that Cunha teaches a fan motor shaft with chamfers that are configured for facilitating removal of the fan from the motor shaft.

G. ORDER

The rejection of claim 9 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement is reversed.

The rejection of claim 9 under 35 U.S.C. § 103(a) as unpatentable over Tremblay and Cunha is reversed.

The rejection of claim 9 under the judicially created doctrine of obviousness-type double patenting as unpatentable over claims 1-9 of Hong in view of Cunha is reversed.

**REVERSED**

Appeal 2009-003601  
Application 10/660,732

KMF

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